

CLAIMS:

1. A process for growing an organism, comprising:

providing a first vessel (30) containing a first
5 body of growth supporting material (50) and causing the
organism to grow in said material in said first vessel
towards a first location;

providing a second vessel (30) containing a second
body of growth supporting material (50); and

10 permitting said organism to grow from the body of
material (50) in the first vessel (30) into the body of
material (50) in the second vessel (30) through said
first location.

15 2. A process according to claim 1, comprising
connecting said second vessel (30) to said first vessel
(30) and permitting said organism to grow into said
second body (50) of material while said vessels are
connected together.

20 3. A process according to claim 2 wherein said
connecting step is performed in a sterile manner.

25 4. A process according to claim 2 or claim 3,
comprising disconnecting said first vessel (30) from said

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second vessel (30) after said organism has begun to grow in said second body of material.

5. A process according to claim 4 wherein said
5 disconnecting step is performed in a sterile manner.

6. A process according to any one of claims 1 to 5
wherein said step of causing said organism to grow
comprises causing said organism to grow in said first
10 vessel (30) and into said second vessel (30) in a
predetermined growing direction.

7. A process according to claim 6 wherein said first
and second vessels (30) are, in the predetermined
15 direction, of different lengths.

8. A process according to claim 7 wherein said second
vessel (30) is shorter than said first vessel (30), said
process further comprising said step of removing said
20 second vessel, after said step of permitting said
organism to grow therein, for sub-sampling thereof.

9. A process according to any one of claims 1 to 8,
comprising causing said organism to grow in said second
25 body of material (50) towards a second location therein,

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providing a third vessel (30) containing a third body of growth supporting material (50) and permitting said organism to grow from said second body of material (50) into said third body of material (50) through said second location.

10. A process of storing a microorganism comprising the steps of:

providing a growth medium (50);

growing a population of a microorganism on or in the growth medium (50); and

sampling said population for subculture;

characterised in that said step of sampling includes sampling across substantially the whole population of the microorganism.

11. A process of storing a microorganism including the steps of:

providing a growth medium (50); and

causing a microorganism to grow on or in the growth medium; characterised in that said step of causing said organism to grow includes training said microorganism substantially in a predetermined direction.

12. A process in accordance with claim 11 wherein said

step of causing said organism to grow includes causing said organism to grow towards a predetermined location, and said method further comprising sampling at said predetermined location to obtain a sample of said organism across substantially the entire population thereof.

13. A process in accordance with claim 12, wherein said sampling step includes the step of placing a sampling medium (50) adjacent said predetermined location for continuing growth of said microorganism thereon or therein.

14. A process of manufacturing a metabolite comprising the steps of:

storing a microorganism in accordance with the method of any of claims 1 to 13;

extracting a sample of said microorganism;

subjecting said sample to conditions suitable for metabolism; and

extracting metabolite from said sample.

15. A method of preparing a pharmaceutical preparation including the step of isolating a metabolite produced in accordance with claim 14.

16. A pharmaceutical preparation including a metabolite the product of a method in accordance with claim 14.

5 17. A storage device for use in the process of any of claims 1 to 15 including a housing (30), growth medium (50) within the housing (32), and first and second locations on the growth medium, such that a microorganism can be grown from the first location towards the second location where subculturing of substantially the entire population can be effected.

10 18. A storage device in accordance with claim 17, wherein the housing (32) is tubular.

15 19. A storage device in accordance with claim 18, wherein the housing (32) is cylindrical.

20 20. A storage device in accordance with any one of claims 17 to 19 wherein the housing (32) is of a sterilizable material.

25 21. A storage device in accordance with any one of claims 17 to 20 wherein said housing (32) has formations (34) at said first and second locations of the growth

medium each formation being suitable to engage with a cooperating formation of another of said storage device (30), for propagation of microorganism therebetween.

5 22. A storage device in accordance with any one of claims 17 to 21 wherein said housing (32) comprises means (40) for retaining said growth medium.

10 23. A storage device in accordance with claim 22 wherein said retaining means (40) has at least one aperture defined therein for passage of microorganism therethrough.

15 24. A storage device in accordance with claim 23 wherein said retaining means (40) comprises at least one retaining member (42') across said vessel.

20 25. A storage device in accordance with claim 24 wherein said retaining means (40) comprises a reticular member (42) across said vessel.

26. A storage device in accordance with any one of claims 17 to 25 wherein said growth medium (50) comprises a natural foodstuff.

27. A storage device in accordance with claim 26 wherein said foodstuff is a vegetal foodstuff.

28. A storage device in accordance with claim 27 wherein said growth medium (50) comprises a quantity of a cereal.

29. A storage device in accordance with claim 27 or claim 28 wherein said growth medium (50) comprises a quantity of seed.

30. A storage device in accordance with any one of claims 27, 28 or 29 wherein said growth medium (50) comprises a quantity of a pulse.

31. A storage device in accordance with any one of claims 27 to 30 wherein said growth medium (50) comprises an agricultural crop byproduct.

32. A storage device in accordance with claim 31 wherein said agricultural crop byproduct comprises at least one of ground corn cobs, peanut shells, tea leaves and straw.

33. A storage device in accordance with any one of claims 26 to 32 wherein said growth medium (50) comprises at least one of calcium sulphate, soy oil, yeast extract

and peptone.

34. A storage device in accordance with any one of claims 17 to 33 wherein said growth medium (50) is sterile.

35. A storage container for use in the storage device (30) of any one of claims 17 to 35, defining a cavity within which growth medium can be contained, said container (32) comprising first and second access means between which growth medium can extend in use, for growth of an organism between said first and second access means in use.

36. A container in accordance with claim 35 including first and second closure means (30), removably closing said access means in use.

37. A storage device for use in the process of any one of claims 1 to 15 comprising:

growth medium (50) for viably supporting a microorganism;

characterised in that

said storage device includes a facility for presenting said population substantially in its entirety

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for subculture.

38. A storage device in accordance with claim 37 and further comprising a receptacle (32) supporting the growth medium.

39. A storage device in accordance with claim 38, wherein the growth medium defines a substantially elongate growing path.

40. A storage device in accordance with claim 38 or claim 39, wherein the receptacle (32) includes attachment means (34) for attachment of said device to further culturing apparatus.

41. A storage device in accordance with claim 40, wherein the attachment means (34) is operable to engage the growth medium with growth medium of a further storage device in accordance with any one of claims 37 to 40.